Hydrologic Restoration in Swamps West of Lake Maurepas

1. Project Title: Hydrologic Restoration in Swamps West of Lake Maurepas

2. Entity/Individual nominating the project: Livingston Parish Government

3. Contact Information (Name, Address, Telephone, Email):

Project Contact: Karla Cormier on behalf of: Mike Grimmer

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4. Total CIAP Funds Requested: \$2,093,591

| Item | | | | | |
|------|--------------------------------------|----------|---------|-------------|-------------|
| # | Work or Material | Quantity | Units | Unit Cost | Amount |
| 1 | Mobilization/Demobilization | 1 | LS | \$100,000 | \$100,000 |
| 2 | Cut Excavation | 20,741 | CY | \$12.00 | \$248,892 |
| 3 | RR Grade Gapping Excavation | 890 | CY | \$2.50 | \$2,225 |
| 4 | Bulkheads | 3,160 | LF | \$300 | \$948,000 |
| 5 | Clearing & Grubbing | 2 | acre | 4,800 | \$9,600 |
| 6 | Erosion Protection | 9,800 | SY | 28 | \$274,400 |
| 7 | Aerial Utility Crossings | 12 | each | \$1,000 | \$12,000 |
| | Estimated Cost of Construction | | | | \$1,595,117 |
| | Estimated Cost of Construction + 25% | | | | |
| | contingency | | | \$398,779 | \$1,993,896 |
| | Livingston Parish Project | | project | | |
| 8 | Administration | 1 | length | \$99,695.00 | \$99,695 |
| | Total Project | | | | \$2,093,591 |

5. Infrastructure Funds Proposed: \$0.00 this is an environmental project

6. Description and Location of Project:

Location is Region 1—Lake Pontchartrain Basin, Livingston Parish in cypress/tupelo swamps west of Lake Maurepas, north & south of the Amite River Diversion Canal. See attached map. Project Problem: Swamps north and south of the Amite River Diversion Canal are highly stressed by a lack of Mississippi River inflow and the impounding effects of the spoil bank along the canal. The Amite River Diversion Canal could compensate for the lack of Mississippi River water, but the spoil banks prohibit input of sediment-laden and nutrient-laden water from the canal into the swamps during high water, and they prohibit drainage of the swamps during low water periods.

Project Goals: 1) Increase productivity and regeneration of cypress and tupelo swamp; 2) increase sediment accretion and nutrient loading in swamp; 3) decrease frequency, intensity, and duration of salinity spikes in swamp; 4) Increase water flows through swamp; 5) Increase the frequency and duration of periods when the swamp surface is not flooded to promote regeneration; 6) Increase frequency and duration of periods when water depths in the swamp <1 ft to support survival of new cypress and tupelo recruits; 7) decrease nutrient loading Lake Maurepas from Amite River.

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Project Solution: Constructing four 40'-wide cuts in the spoil banks on each side (north and south) of the Amite River Diversion Canal to facilitate water exchange. Each cut will be approximately 250' long, to a depth of -1.0' NAVD. Gaps in the old railroad grade, which traverse north-south across the project boundary, would be cut to facilitate better hydrologic connectivity within the project area. The project is expected to benefit 6,458 acres of cypresstupelo swamp; however, it is not expected to directly create additional forested wetland acreage.

- 7. Project Type: Conservation, restoration and protection of coastal area, including wetland & Mitigation of damage to fish, wildlife and natural resources.
- 8. Project Justification: This project is supported by EPA Region 6 and the Livingston Parish Waterway Commission. It has been a CWPPRA candidate under PPL12 and PPL16. Attached is the fact sheet from the most recent PPL16 information. This project is designed to not require land acquisition and has been redesigned to not need bridges. This environmental project does have over 11 months of gage data in the project area to support the project's assumptions. The project is expected to continue providing wetland benefits 30-40 years after construction because project features are simple and should be durable over time.
- 9. Project cost share (Types and amounts of non-CIAP funds proposed, if any): This project is 100% CIAP funding at the parish level.